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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/450,680	11/30/1999	MITSUJI MARUMO	35.G2504	8003

5514 7590 02/27/2003

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

RAO, SHRINIVAS H

ART UNIT PAPER NUMBER

2814

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/450,680	Applicant(s) MARUMO, MITSUJI	
	Examiner Steven H. Rao	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 19 December 2002.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☐ Claim(s) 1-18 and 21 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Priority

Receipt is acknowledged of paper submitted under 35 U.S.C. 120 claiming priority from U.S. Serial No. 09/450680 filed on December 19, 2002 which itself claims priority from Japanese Patent Application No. 357007/1998 filed on 12/02 /1998, which papers have been placed of record in the file.

Continued Prosecution Application

The request filed on 11/13/2002 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/450680 is acceptable and a CPA has been established on December 19, 2002. An action on the CPA follows.

Preliminary Amendment Status

Acknowledgment is made of entry of preliminary amendment filed 10/15/2002 has been entered on December 12, 2002.

Therefore claims 1 and 9 as amended by the amendment and claims 2 to 8 and 10 to 20 as originally filed and presently newly added claim 21 are currently pending in the application.

Claim Rejections - 35 USC § 112

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12 the phrase "kinematic coupling " renders the claim indefinite because it is not clear Applicants' intend to include/exclude the term "kinematic coupling".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 9, 11-14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPR (Applicants' Admitted Prior Art) previously applied in view of Drake et al. (U.S. Patent No. 5,006,760, herein after Drake) presently newly applied .

With respect to claim 1, AAPR describes a mini-environment pod device, said device being free to be installed in and uninstalled from a shielded chamber for containing : a micro-device manufacturing apparatus for a micro-device manufacturing

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apparatus, (AAPR fig. 10) comprising: a cassette being able to hold a substrate(AAPR fig.10 # 100, spec. page 2 line 8) , the substrate being transported to the apparatus and processed (see below, substrate – AAPR fig. 10 # 4) ; a pod providing an inner space to store said cassette, (AAPR fig. 10 # 3,4)

AAPR does not specifically describe or mention a pod including an outer surface where an electromagnetic shield is disposed and an opening.

However Drake in figure 1 and col. 2 lines 25-31 describes an electro magnetic shield and an opening to form an outer surface that protects the wafer inside from electromagnetic radiation.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Drake's pod including an outer surface where an electromagnetic shield is disposed and an opening In AAPR's device to form an outer surface that protects the wafer inside from electromagnetic radiation.

The other limitations of the claim 1 are :

a lid which fits into the opening of said pod (AAPR fig.10 # 100, spec. page 2 line 8), said lid providing an isolated environment in the inner space (AAPR fig. 10 # 100) , wherein when said pod is installed in the shielded chamber (AAPR fig. 10) the electromagnetic shield of said pod becomes in a conductive relationship with the shielded chamber (Drake col. 2 lines 30-31 and 52 to 62) , and when said pod is installed in the shielded chamber, said lid is removed from the opening of said pod along a portion of the shielded chamber, and the substrate in said cassette is transported to the apparatus, the electromagnetic shield of said pod inhibits leakage of

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electromagnetic waves from the inside of the shielded chamber through the opening of said pod to the outside of said pod.

The limitations, " the substrate being transported to the apparatus and processed" and "and when said pod is installed in the shielded chamber, said lid is removed from the opening of said pod along a portion of the shielded chamber, and the substrate in said cassette is transported to the apparatus, the electromagnetic shield of said pod inhibits leakage of electromagnetic waves from the inside of the shielded chamber through the opening of said pod to the outside of said pod " is a product by process limitation recited in a device claim and therefore cannot be given patentable weight .

It is well settled law that a product by process claim is directed to the product per se, no matter how actually made . See *In re Fessman*, 180 USPQ 324, 326 (CCPA 1974); *In re Marosi et al.* 218 USPQ 289, 292 (Fed. Cir 1983) all of which make it clear that it is the patentability of the final structure of the product gleaned from the process steps, which must be determined in a product by process claim, and not the patentability of the process. See Also MPEP 2113. More ever an old or obvious product produced by a new method is not a patentable product, whether claimed in " product by process" claims or not. .

With respect to claim 2, wherein said mini-environment pod is a front opening type having the opening in the front of the pod. (AAPR spec. pages 2 lines 29 to page 3 line 12)

With respect to claim 3 wherein said mini-environment pod is a bottom opening type having the opening in the bottom of the pod. (AAPR spec. pages 2 lines 29 to page 3 line 12)

With respect to claim 5 wherein said electromagnetic shield comprises wire mesh provided on or within walls of said pod. (AAPR spec. page 3 lines 21-22).

With respect to claim 6 wherein said electromagnetic shield comprises metal coatings provided on walls of said pod. (AAPR spec. page 3 lines 17-18 , inherent instead of the shielded metal covering metal coating can be used).

With respect to claim 9, AAPR describes a mini-environment pod device, said device being free to be installed in and uninstalled from a shielded chamber for containing a micro-device manufacturing apparatus for a micro-device manufacturing apparatus including : A micro-device manufacturing apparatus for processing a substrate, said apparatus comprising: a shielded chamber having an opening covered with a door; a door opener which opens the door of said shielded chamber; and a processing system, contained in said shielded chamber, which processes the substrate in said shielded chamber; and a pod stand for mounting a mini -environment pod device, the pod device being free to be installed in and uninstalled from said shielded chamber and comprising: a cassette being able to hold the substrate, the substrate being transported to said processing system and processed; a pod providing an inner space to store the cassette, the pod including an outer surface where an electromagnetic shield is disposed and an open end; and a lid which fits into the open end of the pod, the lid providing an isolated environment in the inner space, wherein

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when the pod is installed in said shielded chamber, the electromagnetic shield of the pod becomes in a conductive relationship with said shielded chamber, and when the pod is installed in said shielded chamber, the lid is removed from the open end of the pod along with the door of said shielded chamber by said door opener and the substrate in the cassette is transported to said processing system, the electromagnetic shield of the pod inhibits leakage of electromagnetic waves from the inside of said shielded chamber through the open end of the pod to the outside of the pod.

The same rejection as stated under claim1 above and incorporated here by reference , the additional element of a processing system in the chamber (AAPR page 3 lines 10-12, wherein the wafers are exposed).

pod is installed in said shielded chamber, the lid is removed from the open end of the pod along with the door of said shielded chamber by said door opener and the substrate in the cassette is transported to said processing system, the electromagnetic shield of the pod inhibits leakage of electromagnetic waves from the inside of said shielded chamber through the open end of the pod to the outside of the pod.

The same rejection as stated under claim1 above and incorporated here by reference , the additional element of a processing system in the chamber (AAPR page 3 lines 10-12, wherein the wafers are exposed).

With respect to claim 11, wherein the chamber includes an optical system (AAPR spec. page 1 lines 16-17, for exposing wafer with radiation is a product by process and therefore no patentable weight can be given).

With respect to claim 12, to the extent understood, wherein the chamber includes kinematic couplings (AAPR fig. 10, Drake figs. 1 and 2).

With respect to claims 13 and 14, wherein the mini environment pads are front opening type and bottom opening type (AAPR page 3 lines 4 to 6) (AAPR page 2 lines 30-33).

With respect to claim 21 wherein pod further including a flange, wherein when said pod is installed in the shielded chamber, the flange touches the shielded chamber on the surface. (Drake fig. 1 # 13 touching 25).

B. Claims 7-8, 10, 15 to 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPR (Applicants' Admitted Prior Art) and Drake et al. (U.S. Patent No. 5,006,760, herein after Drake) as applied to claims 1-6 etc. above and further in view of Akagawa (U.S. Patent No. 4,856,904 herein after Akagawa) .

With respect to claim 7 wherein said electromagnetic shield comprises shielding materials provided in walls of said pod.

AAPR and Drake do not specifically mention shielding materials provided in walls of the pod.

However, Akagwa fig.2 # 46, 47 and col.2 line 64 and col. 6 lines 64-68 describes shielding materials provided in walls of the pod to provide shield materials in intermetant unspecified locations to reduce the electromagnetic leakage and provide a lighter (less weight) shield.

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Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Akagawa's shielding materials provided in walls of the pod to provide shield materials in intermetant unspecified locations to reduce the electromagnetic leakage and provide a lighter (less weight) shield.

With respect to claim 8 wherein said electromagnetic shield has a shielding capacity of under 100 dB (~N) within frequencies of about 9 kHz to about 400 MHz. (Akagawa -describing electromagnetic shield for all wavelengths).

With respect to claim 10, wherein said chamber has a grounded conductive portion around the opening, which contacts said pod when said pod is installed on said chamber. (Akagawa . # 84, col.11 lines 9 to 11).

With respect to claim 15 wherein said electromagnetic shield comprises wire mesh provided on or within walls of said pod. (same reasons as under claim 7 above).

With respect to claim 16 wherein said electromagnetic shield comprises metal coatings provided on walls of said pod.(same reasons as under claim 8 above).

With respect to claim 17 wherein said electromagnetic shield comprises shielding materials provided in walls of said pod. (same reasons as under claims 7 and 15 above).

With respect to claim 18 wherein said electromagnetic shield has a shielding capacity of under 100 dB (~N) within frequencies of about 9 kHz to about 400 MHz. (same reasons as under claim 8 above).

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Steven H. Rao whose telephone number is (703) 306-

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5945. The examiner can normally be reached on Monday- Friday from approximately 7:00 a.m. to 5:30 p.m.

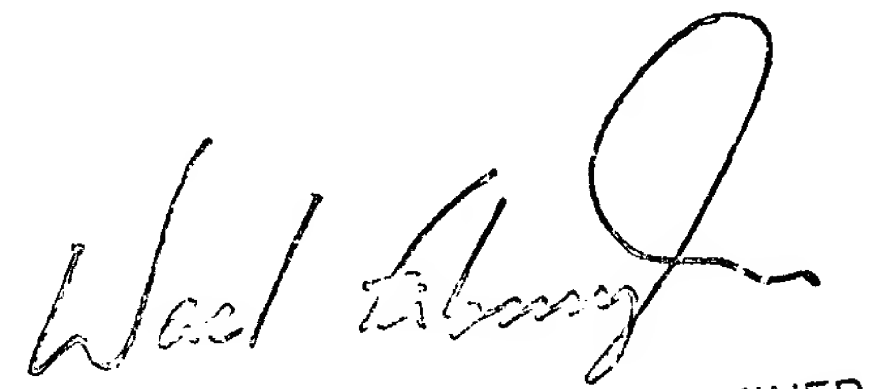
Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. The Group facsimile number is (703) 308-7724.



Steven H. Rao

Patent Examiner

February 14, 2003.



SUPPLEMENTARY EXAMINER
TECHNOLOGY CENTER 2800